

Item follows:

#### SUPERVISOR TO SPEAK ON HOSPITAL POLICIES

Supervisor Stanley Abel, Secretary of the State Supervisorial Association, has been asked to address the state supervisors' convention at Santa Cruz in May on the subject of "State Hospitalization."

Supervisor Abel said here he will take the stand in his address that patients needing operations, those who are ill and in need of medical attention, should be required to pay on a basis of their ability to pay and not on a basis of arbitrary costs.

He said further he will take the stand that county and state hospitals should be available to everyone, and their facilities should not be withheld and limited to a restricted class. He declared he was opposed in principle to state medicine, believing every man should have a right to select his own doctor, but favored state hospitalization in which hospital facilities would be made available to everyone on a basis of ability to pay.

## EDITORIAL COMMENT\*

### SYMPTOM-FREE JENNERIAN VACCINATION

The substitution of test-tube virus for routine calf lymph in smallpox vaccination is currently advocated by Doctors Rivers and Ward<sup>1</sup> of the Rockefeller Institute. Their "cultivation virus" is free from bacterial contamination, can be used without the addition of chemical antiseptics, and allegedly causes such mild local and systemic reactions as to remove many of the popular objections to vaccination. Moreover, test-tube vaccinia is apparently qualitatively identical with the Board of Health virus.

Artificial cultivation of vaccinia was first accomplished, about twenty years ago, by Doctors Steinhardt, Israeli, and Lambert,<sup>2</sup> of New York City, who found that this filterable agent multiplies (or is multiplied) in the presence of viable tissue fragments suspended in homologous plasma. This discovery was of main interest, at the time, in throwing light on the probable nature of this ultramicroscopic infectious unit. It suggested, for example, that the infectious particle is probably not a fully autonomous microbic cell, but should be likened to a pathogenic enzyme or infectious hormone capable of symbiotic proliferating with the aid of viable histological units.

The Steinhardt cover-glass technique was afterward modified so as to make possible large scale cultivation of this virus. In the final technique thus far developed by the New York investigators, minced chick embryo suspended in Tyrode's solution is the routine culture medium. If transfers to fresh flasks of embryonic tissue suspension are made at intervals of four to five days, the virus can be propagated indefinitely. A gradual reduc-

tion in its anti-rabbit virulence, however, is noted in successive transplants, the infectious agent becoming practically avirulent by the ninetieth serial transfer. At any stage of this deterioration, however, the virus can be restored to its original anti-rabbit virulence by testicular inoculation.

With various artificial cultures of this type, including virulent, practically avirulent and "revived" strains, over a hundred children thus far have been vaccinated by the New York investigators, 90 per cent of whom gave positive local pustular reactions. The local reactions, however, were invariably milder than those caused by the routine calf-lymph virus. The children had no fever, and no other recognizable toxic or allergic symptoms.

The prophylactic value of the Rivers-Ward cultivation virus is deduced from the fact that all children successfully vaccinated with this virus, who were subsequently tested with the Board of Health calf lymph, were found to be refractory to routine vaccination. Conversely, individuals previously vaccinated with the Board of Health virus gave negative results on attempted revaccination with Rivers-Ward virus. The only differences between the two viruses, therefore, are apparently quantitative in nature.

In spite of these encouraging results, however, the clinical profession will be reluctant to test the suggested substitution. A more feasible suggestion would be to use the Rivers-Ward vaccine as a preliminary immunizing agent, to be followed in all cases and preferably about a month later by routine calf-lymph inoculation. The predicted probability is that 80 per cent of these revaccinations would not "take." The 20 per cent that did take, presumably would give unusually mild local and systemic reactions.

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### AMEBIC DYSENTERY

Wide publicity has been given to an outbreak of amebic dysentery in Chicago, originating presumably in an unusual number of carriers among the food-handling personnel of two hotels. The interest, not to say anxiety, that has been created, and the feverish activity that has resulted in many diagnostic laboratories invite comment on the general question of amebic infections, with especial reference to the possibilities of similar trouble in other communities.

In Chicago amebic cases and amebic carriers were found during August among the food-handling personnel of two certain hotels, in one of which two cases of amebic dysentery had been reported on August 16. It was learned later, in November, that a break in a sewer had occurred on July 2, flooding basements and ice storage rooms. It is apparent, however, that no pollution of the water supply could have occurred at this time, as no cases of diarrhea or dysentery were reported until six weeks later, when two cases of amebic dysentery were found. The theory that amebiasis resulted from the sewer break in July

\* This department of CALIFORNIA AND WESTERN MEDICINE presents editorial comment by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to all members of the California and Nevada Medical Associations to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.

<sup>1</sup> Rivers, T. M., and Ward, S. M.: *J. Exper. Med.*, 58:635 (Nov.), 1933.

<sup>2</sup> Steinhardt, E., Israeli, C., and Lambert, R. A.: *J. Infect. Dis.*, 13:294, 1913.